

# Calibration Report: Pyrometer (Infrared Radiation Thermometer)

**S/N: 1415**

10 January 2012

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Science Systems and Applications, Inc.  
Hampton, Virginia

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## Summary

Calibration date: 10 Jan 2012

Next Calibration date: 10 Jan 2013

A collection, analysis and calibration of data from a Heitronics Pyrometer (Infrared Radiation Thermometer or IRT), S/N: 1415, has been completed. The calibration was performed by Wintronics, Inc. These data were collected by Wintronics on 10 January 2012.

Model: KT19.85

Serial Number: 1415

The test data presented in table format is displayed on the next page. The IRT was NOT in tolerance "as received". The IRT needed the reference adjusted as it was out of spec at 0 & 30C, even with the new lens. The old lens (K8AR, NR.1415) was in bad shape and gave poor results. A new lens (K8AR, NR.1416) was used in the "Outgoing" calibration process. Since this IRT will be used as a sea surface temperature measurement device, the numbers of most value are between 0-30 degrees C (273.15-303.15 Kelvin). It is determined an offset(y-int.) of -0.28 degrees C (-0.28 Kelvin) will be applied to instrument data. Wintronics, Inc. quality program is registered to ISO 9001:2000. Traceability is achieved through calibrations to NIST (National Institute of Standards and Technology) or compared to consensus standards.

The following pages provide more detail into the calibration process and results.

Application: Standard Campbell datalogger program for KT19.85 pyrometer.

**Wintronics, Inc.**  
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Millington, NJ 07946  
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## Certificate of Calibration

ANSI/NCSL Z540-1-1994

Certificate No.: J0094595

Manufacturer: **Heitronics** Description: **Infrared Thermometer**  
Model No: **KT19.85** Serial No: **1415**

Customer: NASA Langley Research Center Customer PO:  
21 Langley Blvd, Bld1250,Rm124 Customer Asset No:  
Hampton, VA 23681-0001

Temperature (C): 23 Technician: PLW  
Humidity (%): 39 Date Cal: 1/10/2012  
Procedure: W60985 Date Due: 1/10/2013

The manufacturer's specifications of the above instrument have been confirmed by comparison to standards which are regularly calibrated using accepted values of natural physical constants, ratio type self-calibrating techniques, comparison to standards which are traceable to NIST, or compared to consensus standards. Wintronics' calibration procedures comply with ANSI/NCSL Z540-1 & MIL-STD-45662A. Wintronics' Quality program is registered to ISO9001:2008.

As received condition: Out of Tolerance  
As shipped condition: In Tolerance  
Type of Calibration: Normal

### Calibration Standards

Manufacturer	Model	Description	Asset #	Calibration		Cert. No.
				Date	Date Due	
Heitronics	TRT3.82	Transfer Infrared Pyrometer	W185	11/4/2011	11/4/2012	J0093158

  
**Peter Winter**  
President  
Certified By

